

What is claimed is:

1. A method of decreasing nitrogen waste production from ruminant feedlots comprising the step of:

5 feeding the ruminants a harder to digest feed treated with exogenous pectinase, protease, beta-glucanase, amylase, and *Trichoderma viride* cellulase enzymes.

2. A method of increasing protein digestability of a harder to digest feed comprising the steps of:

10 treating the feed with an exogenous pectinase enzyme;
treating the feed with an exogenous protease enzyme;
treating the feed with an exogenous beta-glucanase enzyme;
treating the feed with an exogenous amylase enzyme;
treating the feed with an exogenous *Trichoderma Viride* cellulase enzyme; and

15 feeding the treated feed to ruminants,
wherein the feed treatment steps are performed (a) sequentially in any order, (b) separately but concurrently, (c) by combining all of said enzymes prior to the treating steps, or (d) by combining two or more of said enzymes prior to the treating steps.

20 3. The method of claim 2 wherein the feed includes grain sorghum.

4. The method of claim 2 wherein the ruminants comprise dairy cows.

25 5. The method of claim 2 wherein the ruminants comprise beef cattle.

6. The method of claim 2 wherein the feed is selected from the group consisting of grain sorghum, cottonseed hulls, gin trash and alfalfa hay.

7. The method of claim 6 wherein the ruminants are selected from the group consisting of dairy cows and cattle.

8. A composition adapted for application to easier to digest feed to ruminants, to increase the protein digestability of the feed,

5 comprising:

an exogenous pectinase enzyme;

an exogenous beta-glucanase enzyme;

an exogenous amylase enzyme;

an exogenous hemicellulase enzyme; and

10 an exogenous *Trichoderma viride* cellulase enzyme.

9. The composition of claim 8 wherein the feed includes corn.

10. The composition of claim 8 wherein the feed includes alfalfa.

11. A composition adapted for application to harder to digest feed to be fed to ruminants to increase the protein digestability of the

15 feed, comprising:

an exogenous pectinase enzyme;

an exogenous protease enzyme;

an exogenous beta-glucanase enzyme;

an exogenous amylase enzyme; and

20 an exogenous *Trichoderma Viride* cellulase enzyme.

12. The composition of claim 11 wherein the feed includes grain sorghum.

13. The composition of claim 12 wherein the feed is selected from the group consisting of grain sorghum, gin trash and cottonseed
25 hulls.

14. A method of increasing the total milk production of dairy cows comprising:

treating the feed with a *Trichoderma viride* cellulase enzyme; and

feeding the treated feed to the dairy cows.

15. A method of increasing the total milk fat production of dairy cows comprising:

treating the feed with a *Trichoderma viride* cellulase enzyme; and
feeding the treated feed to the dairy cows.

5 16. A method of increasing the total milk protein production of dairy cows comprising:

treating the feed with a *Trichoderma viride* cellulase enzyme; and
feeding the treated feed to the dairy cows. °

10 17. A composition adapted for application to easier to digest feed to ruminants, to increase the protein digestability of the feed, comprising:

an exogenous amylase enzyme; and
an exogenous *Trichoderma viride* cellulase enzyme.

15 18. A composition adapted for application to easier to digest feed to ruminants, to increase the protein digestability of the feed, comprising:

an exogenous beta-glucanase enzyme; and
an exogenous *Trichoderma viride* cellulase enzyme.

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